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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,041	01/18/2006	Norberto Sainz De La Maza Escobal	P4043256	5362
2352 7590 08/01/2007 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			EXAMINER MAYO III, WILLIAM H	
			ART UNIT 2831	PAPER NUMBER
			MAIL DATE 08/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/565,041

Applicant(s)

SAINZ DE LA MAZA ESCOBAL ET AL.

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/18/06 & 10/26/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in PCT Application No. PCT/ES04/00260, filed on June 7, 2004.

### ***Information Disclosure Statement***

2. The information disclosure statement filed October 26, 2006 & January 18, 2006 have been submitted for consideration by the Office. They have been placed in the application file and the information referred to therein has been considered.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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4. The abstract of the disclosure is objected to because in line 2, the abstract contains the term "comprises", which is improper claim language. The applicant should replace the term with the term "has".

5. In line 7, the abstract contains the term "minimizes", which is improper spelling. The applicant should replace the term with the term --minimizes--. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the coupling system having a mechanical protection device, does not reasonably provide enablement for coupling system having a mechanical protection device independent of the union assembly. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, there is nothing in the filed application that refers or suggests that the mechanical protection device is "independent" (i.e., that it can be used for instance in an existent coupling system) from the union assembly. In fact, the recessed shape of the insulating shell suggests the use of the mechanical device and one of the embodiments of the invention (see description, page 6, lines 25-29

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and figure 3) show a mechanical protection device that is "partially enclosed in a semiconductor material (3)" implying a inter-dependency of the elements forming the coupling system.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 1 recites the limitation "connector or union assembly" in line 2 and then just refers to the union assembly in line 6, which is confusing and renders the claim indefinite. The applicant claims either a connector or union assembly, but limits the claim language in the lateral part of the claim, which is improper. If the applicant utilizes alternative language in the claims, then the alternative language should be consistent throughout the claim to provide the claim with clarity.

11. Claim 1 recites the limitation "a conducting or semi-conducting layer" in line 4 and then just refers to the semi-conducting in line 7, which is confusing and renders the claim indefinite. The applicant claims either a conducting or semi-conducting layer, but limits the claim language in the lateral part of the claim, which is improper. If the applicant utilizes alternative language in the claims, then the alternative language should be consistent throughout the claim to provide the claim with clarity.

***Treatment of Claims.***

12. The examiner assumes that the applicant intends to utilize alternative language throughout the claims.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Poth (Pat Num 6,129,554). Poth discloses an electrical coupling device (Fig 1) capable of connecting separable connecting leads between at least two switch-rooms for high voltage (Col 1, lines 5-10). Specifically, with respect to claim 1, Poth discloses an electrical coupling device (Fig 1) comprising a connector (EK) that inserts in female connectors (GH1 & GH2) of the high voltage equipment (SR1 & SR2), which comprises an insulating shell (GH1 & GH2, Col 3, lines 5-6) that houses conducting elements (DB1 & DB2), wherein the insulating shells (GH1 & GH2) are partially covered by a conducting element (HS), wherein a mechanical protection device (DF) independent the coupling device (EK) and the connectors (GH1 & GH2), wherein the protection device (DF) surrounds and contacts the conducting layer (HS). With respect to claim 2, Poth discloses that the protection device (DF) consists of a conducting ring (Col 4, lines 1-9). With respect to claim 3, Poth discloses that the conducting ring (DF) is connected to

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earth is metallic (Cols 3-4, lines 54-56 & 1-9, respectively). With respect to claim 4, Poth discloses that the protection device (DF) incorporates an inductive current sensor (FP1, FP2, Col 3, lines 45-53). With respect to claim 7, Poth discloses that the protective device (DF) incorporates a capacitive voltage sensor (FP1, FP2, Col 3, lines 45-53). With respect to claim 8, Poth discloses that the protection device (DF) encompasses all the connectors (GH1 & GH2, Fig 1). With respect to claim 9, Poth discloses that the protection device (DF) consists of a conducting ring connected to earth (Cols 3-4, lines 54-56 & 1-9, respectively).

### ***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 5-6 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poth (Pat Num 6,129,554) in view of Fisher (DE Pat Num 1135864A1). Poth discloses an electrical coupling device (Fig 1) capable of connecting separable connecting leads between at least two switch-rooms for high voltage (Col 1, lines 5-10) as disclosed above with respect to claim 1.

However, Poth doesn't necessarily disclose the current sensor being a Rogowski coil (claim 5), nor the current sensor consisting of a winding about a magnetic core (claim 6), nor the current sensor encompassing all phases (claim 11), nor the current sensor comprising all phases (claim 12), nor the voltage detection for each phase of the main circuit (claim 13).

Fisher teaches a coupling system between high voltage electrical equipment, wherein the design of the plug fitting provides more accuracy of current and voltage determination (See Advantage). Specifically, with respect to claims 5-6, Fisher discloses a coupling system (Figs 1-11) comprising a connector (Fig 1) comprising a protection device (7), which is a current sensor in the form of a Rogowski coil, which is a coil surrounded by a magnetic core (See Basic Abstract). With respect to claims 11-13,



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Fisher discloses that the current sensor (7) in conjunction with the voltage sensor (16) provide current and voltage protection for each phase (see advantage, Col 1, lines 3-33, Col 5-6, lines 4-55 & 1-33 respectively).

With respect to claims 5-6 and 11-13, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the coupling system of Roth to comprise the voltage and current detection configuration incorporating the Rogowski coil as taught by Fisher because Fisher teaches that such a configuration provides more accuracy of current and voltage determination (See Advantage).

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Dholoo (Pat Num 4,815,986) and Kooiman (Pat Num 7,077,697), all of which disclose various electrical connections.

### ***Communication***


20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III  
Primary Examiner  
Art Unit 2831

WHM III  
July 17, 2007